



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,106	09/27/2001	Venkat Konda	M-12222 US	8102
38139	7590	09/24/2004	EXAMINER	
TEAK NETWORKS, INC. 6278 GRAND OAK WAY SAN JOSE, CA 95135			ZIMMERMAN, BRIAN A	
			ART UNIT	PAPER NUMBER
			2635	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Interview Summary

Application No.

09/967,106

Applicant(s)

KONDA, VENKAT

Examiner

Brian A Zimmerman

Art Unit

2635

All participants (applicant, applicant's representative, PTO personnel):

(1) Venket Konda.

(3)_____.

(2) Brian Zimmerman.

(4)_____.

Date of Interview: 21 September 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference

c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.

If Yes, brief description: _____.

Claim(s) discussed: 16,18,126,137,139,145,156,158 and 164.

Identification of prior art discussed: Yang.

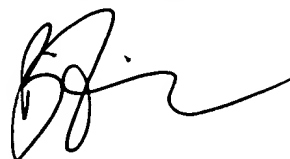
Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The applicant intends to file an official response to the Final Office Action including the arguments set forth in the proposed response (attached). The applicant also intends to point out differences between the claimed invention and the example given on col. 9 of Yang that discusses fanout of one in the initial stage when the output ports are all part of the same output switch.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

BRIAN ZIMMERMAN
PRIMARY EXAMINER



Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

PROPOSED RESPONSE B, Contd.

In The United States Patent And Trademark Office

Application Number: 09/967,106

Application Filed: 09/27/2001

5 Applicant(s): Venkat Konda

Title: Strictly Nonblocking Multicast Multi-Stage Networks

Examiner/Art Unit: Brian A. Zimmerman / 2635

San Jose, 2004 September 20, Mon

10

PROPOSED RESPONSE B

(and the response to office letter dated 8/16/2004)

Commissioner for Patents

P.O. Box 1450

15 Alexandria, Virginia, 22313-1450

Sir:

In response to the office action mailed 2004 August 16, please consider the following
Proposed Response B.

20 Applicant addresses the novelty and unobviousness of the current invention over
the prior art, including the U.S. Patent 5,801,641 by Yang et. Al. Applicant also submits
that he has reviewed all the other cited references and they do not show the current
invention or render it obvious.

I. RESPONSE TO ADDRESS THE REJECTIONS 2 AND 3:

Applicant respectfully submits to refer back to the applicant's prior response to the prior office action.

- 5 To address the rejections 2 and 3, Applicant submits that the term "fan-out" is used in four different contexts. 1) A multicast connection has a fan-out of maximum of r_2 . 2) To set up the multicast connection in the three-stage networks, for the strictly nonblocking operation, the multicast connection is fanned out in each of the three stages namely the first stage, the second stage and the third stage. Accordingly there is fan-out in the first
- 10 stage, fan-out in the second stage and the fan-out in the third stage of the three-stage network for the multicast connection after it is setup. Applicant respectfully believes that the meaning of the term "fan-out" in these four different contexts caused the rejections 2 and 3. And the following table clarifies these issues.

- 15 **The following table addresses the list of items where the current invention is superior over U.S. Patent 5,801,641 by Yang et. al:**

Item addressed	Solutions in patent 5,801,641 by Yang et.al	Solutions in Current Application
Number of middle stage switches (for strictly nonblocking operation)	$m \geq \min((n_1 - 1)x + (n_2 - 1)r_2^{1/x})$ where $1 \leq x \leq \min(n_2 - 1, r_2)$	$m \geq 2 * n_1 + n_2 - 1$
Strictly nonblocking operation of the three-stage network with fan-out of the multicast connection being a maximum of r_2 is the goal of both the patent 5,801,641 by Yang and current application. But to achieve this goal the multicast connection is fanned-out in each of the three different stages of the network as described below.		

PROPOSED RESPONSE B, Contd.

<p>Fan-out in the first stage (for strictly nonblocking operation)</p>	<p>Yang does not address what is the fan-out of a multicast connection in the first stage.</p>	<p>Current invention claims a fan-out of at most two in the first stage, irrespective of the values of n_1, n_2, r_1 and r_2. (This is a very strong claim; and with $m \geq 2 * n_1 + n_2 - 1$, a much smaller number than that of Yang's)</p>
<p>Fan-out in the second stage (for strictly nonblocking operation)</p>	<p>Yang does not address what is the fan-out of a multicast connection in the second stage.</p>	<p>Current invention claims an arbitrary fan-out in the second stage, irrespective of the values of n_1, n_2, r_1 and r_2. (This is a very strong claim; and with $m \geq 2 * n_1 + n_2 - 1$, a much smaller number than that of Yang's)</p>
<p>Fan-out in the third stage (for strictly nonblocking operation)</p>	<p>Yang does not address what is the fan-out of a multicast connection in the third stage.</p>	<p>Current invention claims an arbitrary fan-out in the third stage, irrespective of the values of n_1, n_2, r_1 and r_2. (This is a very strong claim; and with $m \geq 2 * n_1 + n_2 - 1$, a much smaller number</p>

PROPOSED RESPONSE B, Contd.

		than that of Yang's)
Figure 2b in patent 5,801,641 by Yang	In Figure 2b, Yang is limiting the fan-out of the multicast connection to $r_2 = 3$. (And hence Yang's solution is limited to $r_2 = 3$. However Yang does not address how the multicast connection is fanned out in each of the three different stages for arbitrary values of r_2.) (More over in Figure 2b, Yang is just showing an example fan-out of a multicast connection where $r_2 = 3$, but Yang did not generalize the fan-out of the multicast connection in each of the three stages for nonblocking operation of the three-stage network.)	Current application claims for the strictly nonblocking behavior with the said $m \geq 2 * n_1 + n_2 - 1$ middle switches, and multicast connections with arbitrary fan-out for any value of r_2, a fan-out of at most two in the first stage is sufficient. (by cleverly choosing two middle switches as described in the scheduling algorithm). (This is a very strong and fundamental claim compared to Yang's.)
		One more key claim in current application is the minimum number of middle stage switches (in a symmetrical network) $m \geq 3 * n - 1$ (where $3 * n - 1 = 2 * n + (n - 1)$) where $2 * n$ is directly related to a fan-out of at most two in the first stage switches

PROPOSED RESPONSE B, Contd.

		irrespective of the value of r. (This is a very fundamental and elegant solution.) The same is the case in the non-symmetrical network
--	--	--

1) **The rejection of Claims 137-149, 156-168, 192 under 35 USC 102(b)**

5 Accordingly applicant submit that the claims do comply with § 102(b) and therefore request withdrawal of this rejection.

2) **The rejection of Claims 116-130 under 35 USC 103(a)**

Accordingly applicant submit that the claims do comply with § 103(a) and therefore request withdrawal of this rejection.

10

CONCLUSION

For all of the above reasons, applicant submits that the Claims all define patentably over the prior art. Therefore applicant submits that this application is in condition for allowance, which action he respectfully solicits.

Conditional request for Constructive Assistance

15

Applicant submits that the claims of this application are proper, definite, and define novel structure which is also unobvious. If, for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P § 2173.02 and § 707.07(j) in order that the undersigned can place this application in

20 allowable condition as soon as possible and without the need for further proceedings.

PROPOSED RESPONSE B, Contd.

Very respectfully,

Venkat Konda

Teak Networks, Inc (USPTO Customer Number: 38139)

5 6278 Grand Oak Way

San Jose, CA 95135

Phone: 408-472-3273;

Fax: 408-238-2478

10 **Certificate of mailing:** I certify that on the date below this document and referenced attachment, if any, will be deposited with the U.S. Postal Service as first class mail in an envelope addressed to: "COMMISSIONER FOR PATENETS, P.O. BOX 1450, ALEXANDRIA, VIRGINIA, 22313-1450."

15 2004, September 20

Venkat Konda, Applicant